

***TENDER***

***FOR***

**ADDITIONAL WORKS IN SILVER JUBILEE BLOCK  
AT  
NATIONAL INSTITUTE OF INTERDISCIPLINARY  
SCIENCE & TECHNOLOGY (NIIST),  
THIRUVANANTHAPURAM**

**PART-III  
PRICE BID**

**TENDER NO. HLL/ID / 14/32  
APRIL 2014 (Retender)**



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## **1 COMMERCIAL CONDITIONS**

1.0.1 The tendered rate shall inter alia be deemed to include for the provision of all materials, process, operation and special requirements detailed in the particular specification irrespective of whether these are mentioned in the description of equipment schedule and Bill of quantities or not. It is an express condition of the contract that the tendered rates for various items in the Bill of Quantities shall be deemed to include for the full, entire and final condition of the contractor respective items of the works in accordance with the provision of the contract.

**1.0.2** The tendered rate shall include for all taxes, duties, etc. as applicable and shall be quoted on the works contract basis for **Additional works in Silver Jubilee Block at NIIST, Thiruvananthapuram.**

1.0.3 The tendered rate shall remain firm and free from variation due to rise in the cost of materials/equipment, labour or any other reasons whatsoever during the contract period and valid extension on the case may be.

1.0.4 The quantum of excise duty included in the tendered price, the rate at which they were assumed etc. shall be indicated in the tender.

### **1.1 UNIT RATES**

1.11 Only approved work will be measured on completion and priced as per rates quoted against the respective items.

### **1.2 BRIEF DESCRIPTION OF PRICING**

1.2.1. Unforeseen difficulties for which provision has not been made in the tender will in no way relieve the successful tenderer from the full execution of the work.

1.2.2 The price quoted shall be the final amount for this finished work.

### **1.3 INCOME TAX**

Any payment to the contractor as per contract, will be made after deducting income tax as per the rules and regulations.

#### **1.4 SALES TAX AND EXCISE DUTY**

The tenderer shall clearly indicate sales tax, service tax in case of proprietorship, Excise and other duties as applicable in his offer for carrying out this work.

#### **1.6. SUBMISSION OF BILL**

1.6.1. The contractor shall from time to time prepare and submit interim bills of the work executed and on completion of the contract, he shall prepare and submit the final bill. The measurements sheets in support of the interim and final bills shall be prepared by the contractor on the basis of measurements taken by him jointly with the project engineer and the said measurement sheets shall be submitted by him with the relevant bill.

#### **1.7. EXTRA ITEMS**

The contractor is bound to carry out any items of work necessary for the completion of the job even though such items may not have been included in the schedule of probable quantities or rates, such items being necessary or essential for completing the job. Variation order in respect of such additional items and their quantities will be issued in writing by the employer.

1.7.1 All shavings, cuttings and other rubbish as it accumulates from time to time during the progress of work and on completion including that of the sub-contractors and special tradesman and all materials condemned by the project engineer shall be cleared and removed from the site by the contractor without any extra charge.

1.7.2 All measuring steel taps, scaffolding, ladders instruments and tools that may be required for taking measurements shall be supplied by the contractor.

#### **1.8. OVER TIME WORK**

If the contractor is required to work night or on holidays in order to maintain the time schedule he shall take prior approval from the Engineer-in-charge. He should also

provide and maintain at his own cost sufficient lights as may be necessary to enable the work to proceed satisfactorily during the night.

- 1.8.1. The contractor shall give full facilities to all other contractors working on site. He shall also arrange his programme of work so as not hinder the progress of other trades. The decision of the Engineer-in-charge on any point of dispute between the various parties shall be final and binding.
- 1.8.2. It is specifically pointed out that the contractor shall not be entitled to any compensation whatsoever on account of delay in procurement or supply of controlled materials and the rates quoted in the contract are fixed till the completion of the contract.
- 1.8.3. The contractor shall co-operate with other agencies appointed by the owners for the work to proceed smoothly with the least possible delay and to the satisfaction of the owners, architects and the consultants.
- 1.8.4. The owners shall provide a source for power supply at one convenient point at site. The contractor shall at his own cost install a separate meter at the said source and lay additional cables from the said source also at his own cost. For the electricity consumed by the contractor he shall pay the owner the actual cost at the rate charged by the local authority for power for constructional purposes. The contractor shall also obtain the necessary permit for utilizing power for constructional purposes.

## **2 SPECIAL CONDITIONS**

### **2.1. EXECUTION WORK**

2.1.1. The whole of the work as described in the contract (including bills of materials, specification and all drawings pertaining thereto) and as advised by the Engineer-in-charge from time is to be carried out and completed in all parts to the entire satisfaction of the Employer. Any minor details of construction which are obviously and fairly intended, or which may not have been definitely referred to in this contract, but which are usual construction practice and essential to the work, shall be included in this contract.

### **2.2. CERTIFICATE OF COMPLETION**

2.2.1 The contractor shall intimate to the Engineer-in-charge in writing as and when the works are completed and put into beneficial use in order to enable the consultants to check certify to the owners to take over the plants.

2.2.2 The work shall not be considered as completed and put into beneficial use until the consultants have certified in writing that the same has been completed and put into beneficial use.

2.2.3 The defects liability period of one year shall commence from date of such completion or any specific date mentioned therein.

**APPROVED VENDORS LIST FOR ELECTRICAL SYSTEM**

<b>Sl. No</b>	<b>ITEM DESCRIPTION</b>	<b>MAKES</b>
1.	MINIATURE CIRCUIT BREAKERS (MCB)	HAGER (L&T) / SIEMENS / SCHNEIDER / LEGRAND
2.	RESIDUAL CURRENT CIRCUIT BREAKER (RCCB)	HAGER (L&T) / SIEMENS / SCHNEIDER / LEGRAND
3.	DISTRIBUTION BOARDS	L&T(HAGER)/ LEGRAND / SCHNEIDER/ SEIMENS
4.	LT POWER CABLE (FRLS)	UNIVERSAL / TORRENT / GLOSTER/NICCO
5.	LT TERMINATION GLAND (BRASS)	COMET / DOWELS/MULTI PRESSING/HEX
6.	ALUMINIUM CRIMPING LUGS	DOWELS / AMP/ COMET/ MULTI PRESSING/ HEX
7.	LIGHT FIXTURES	PHILIPS / WIPRO
8.	LIGHTING WIRES (FRLS)	FINOLEX / RR CABLES/ V GUARD/ HAVELLS
9.	PVC CONDUIT & ACCESSORIES (ISI APPROVED)	PRECISION/AVON PLAST/VIP/ BALES/KONSEAL
10.	POWER SOCKETS	LEGRAND (MOSAIC)/ MIC(BLENZE)/ CRAFTFREE (ATHENA)/ CLIPSAL
11.	SWITCH & SWITCH BOX	LEGRAND (MOSAIC)/MIC(BLENZE)/ CRAFTFREE (ATHENA)/ CLIPSAL
12.	JUNCTION BOX (IP 55 & IP 65)	CRAB TREE (HAVELLS) / ANCHOR / HONEYWELL (MK) / LEGRAND / LITASKI / CLIPSAL / ABB
13.	PEDESTRAIL, WALL AND CEILING FAN	CROMPTON, ORIENT, HAVELLS, USHA
14.	EXHAUST FAN	ALMONARD, CROMPTON, USHA
15.	TELEPHONE WIRE	DELTON/FINOLEX/RR CABLE

# **BILL OF QUANTITIES**

## **ABSTRACT**

<b>SEC.</b>	<b>DESCRIPTION OF ITEM</b>	<b>AMOUNT (Rs.)</b>
<b>1</b>	<b>New Entrance Gate with security room</b>	
<b>2</b>	<b>Widening of existing road</b>	
<b>3</b>	<b>Construction of Pond</b>	
<b>4</b>	<b>Horticulture works</b>	
<b>5</b>	<b>Electrical Works</b>	
	<b>GRAND TOTAL</b>	

## ADDITIONAL WORKS IN SILVER JUBILEE BLOCK FOR NIIST AT TRIVANDRUM

### New Entrance Gate at South Side of Silver Jubilee Block

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
	<b>Gate with security room</b>					
1	15.7	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
	15.7.4	In cement mortar	Cum	7		
2	4.1.8	Providing and laying in position cement concrete of specified grade including the cost of centering and shuttering at all levels, 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	Cum	5.00		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
3	Derived from DSR 5.33	Providing and laying in position machine batched and machine mixed/RMC mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. (Note :- Cement content considered in this item is @ 380 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately). - All works up to Plinth Level	Cum	25.00		
4	5.22.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding at all levels, Termo – Mechanically Treated Bars	Kg	2125.0		
5	5.9	Centering and shuttering including strutting, propping etc., and removal of form at all levels for,				
a	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete	Sqm	18.00		

<b>Sl. No.</b>	<b>Code</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs. (in words &amp; in figures)</b>	<b>Amount in Rs.</b>
b	5.9.2	Walls (any thickness) including attached pilasters, buttermesses, plinth and string courses etc.	Sqm	80.00		
c	5.9.3	Suspended floors, roofs, landings, balconies and access platform	Sqm	18.00		
d	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	22.00		
e	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	11.00		
f	5.9.19	Weather shade, Chajjas, corbels etc., including edges	Sqm	3.00		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
6	Derive d rate 6.1.2, 2602 & 2603	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 5, Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	17		
7	7.1.1	Random rubble masonry with hard stone in foundation and plinth including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20mm nominal size), Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	16.00		
8	2.27	Supplying and filling, with coarse sand under floors/open area including, watering, ramming consolidating and dressing complete.	Cum	1.00		
9	5.23	Smooth finishing of the RCC exposed surface 6mm thick cement mortar 1:3 (1 cement : 3 fine sand)	Sqm	15.00		
10	13.1.2	12mm cement plaster of mix 1:6 (1 cement : 6 fine sand) for inner walls	Sqm	33.00		

<b>Sl. No.</b>	<b>Code</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs. (in words &amp; in figures)</b>	<b>Amount in Rs.</b>
11	13.2.2	15mm cement plaster on the rough side of single or half brick wall of mix : 1 : 6 (1 cement : 6 fine sand), for outer walls	Sqm	116.00		
12	13.43.1	Applying one coat of white cement primer of approved brand and manufacture on wall surface	Sqm	162.00		
13	13.60.1	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work, for ceiling and inside walls.	Sqm	42.00		
14	11.3.1	Cement concrete flooring 1:2:4 (1 cement : 2 coarse and : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. Complete: 40mm thick with 20mm nominal size stone aggregate.	Sqm	10.00		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
15	11.6.1	Cement Plaster skirting (up to 30cm height)with cement mortar 1:3 (1 cement :3 coarse sand ) finished with a floating coat of neat cement : 18mm Thick	Sqm	2.00		
16	13.46.1	Finishing walls with acrylic smooth exterior emulsion paint of required shade, New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	Sqm	120.00		
17	26.7	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building, for all heights and all levels etc. including :a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design. b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based				

	<p>PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc. c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material &amp; labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium items. The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete,</p>				
	<p>As per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. Up to two decimal places.</p>	Sqm	163		

<b>Sl. No.</b>	<b>Code</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs. (in words &amp; in figures)</b>	<b>Amount in Rs.</b>
18	10.16.1	Steel work in built up tubular ( round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished welded type tubes.	Kg	1796.0		
19	9.48.2	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete, Fixed to openings /wooden frames with rawl plugs screws etc.	Kg	65.00		
20	13.48.3	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications: Painting Steel work with Delux Multi surface paint to give an even shade. Two or more coat applied @ 0.90 ltr/10sqm over an over an under coat of primer applied @ 0.80ltr/10aqm of approved brand or manufacture.	Sqm	81.00		

<b>Sl. No.</b>	<b>Code</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs. (in words &amp; in figures)</b>	<b>Amount in Rs.</b>
21	10.28	Providing and fixing stainless steel (Grade 304) railing made of hollow tubes, channels, plates etc. including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolt complete i/c fixing the railing with necessary accessories & Stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineering-in-charge. (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)	Kg	28		
22	21.1	Providing and fixing aluminum work for doors, windows, ventilators and partitions with extruded built up standard tubular sections / appropriate z sections and other sections of approved make confirming to IS : 733 and IS : 1285 fixed with fixed with raw plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC / neoprene felt etc. Aluminium sections shall be smooth, rust free, straight, mitered and jointed mechanically wherever required including cleat angle, aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing and panelling to be paid for separately).				

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
a	21.1.1	For fixed portion				
	21.1.1 .2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg	17		
b	21.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including the cost of PVC / neoprene gasket required (fittings shall be paid for separately)				
	21.1.2 .2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg	18		
23	21.2	Providing and fixing 12mm thick prelaminate particle board flat pressed three layer or graded wood particle board conforming to IS : 12823 Grade I type II in panelling fixed in aluminium doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc., complete as per architectural drawings and directions of engineer-in-charge.				

<b>Sl. No.</b>	<b>Code</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs. (in words &amp; in figures)</b>	<b>Amount in Rs.</b>
	21.2.2	Prelaminated particle board with decorative lamination on both sides.	Sqm	1		
24	21.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc., with EDPM rubber / neoprene gasket etc., complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item).				
	21.3.2	With float glass panes of 6 mm thickness	Sqm	1.5		
25	21.8	Filling the gap in between aluminium frame & adjacent RCC/Brick/Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.				
	21.8.1	Upto 5mm depth and 5mm width	m	12		

<b>Sl. No.</b>	<b>Code</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs. (in words &amp; in figures)</b>	<b>Amount in Rs.</b>
26	9.97	Providing and fixing aluminium tower bolts ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc., complete.				
	9.97.2	250 x 10mm	Nos	1		
27	21.13	Providing and fixing 100mm brass locks (best make of approved quality) for aluminum doors including necessary cutting and making good etc. complete	Nos	1		
28	9.100	Providing and fixing aluminium handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc., complete.				
	9.100.2	100mm	Nos	1		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
29	9.101	Providing and fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating note less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws etc., complete.				
	9.101.1	Single rubber stopper	Nos	1		
30	9.84	Providing and fixing IS : 3564 marked aluminium extruded section body tubular type universal hydraulic door closer with double speed adjustment with necessary accessories and screws etc., complete.	Nos	1		
31	17.2.1	Providing and fixing white vitreous china pedestal type water closet(European type W.C. pan) with seat and lid, 10 litre low level whiteP.V.C. flushing cistern, including flush pipe, with manually controlleddevice (handle lever), conforming to IS : 7231, with all fittings andfixtures complete, including cutting and making good the walls andfloors wherever required : W.C. pan with ISI marked white solid plastic seat and lid	Nos	1		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
32	17.7.1	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require : White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	Nos	1		
33	11.36	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS:15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand)and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	Sqm	6		
		<b>Total</b>				

**Widening of existing road from Silver Jubilee Building to Roundabout**

Sl. No	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
	<b>Road Development</b>					
1	15.43.2	Dismantling of existing flexible pavement (surface and base /sub base) by mechanical means and disposal of dismantled material up to a lead of 100m , as per direction of Engineer-in-charge.	Sqm	57		
2	15.9.2	Demolishing stone rubble masonry manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 100m lead as per direction of Engineer-in-charge :	Cum	20		
3	15.3	Demolishing R.C.C. work manually / by mechanical means including stacking of steel bars and disposal of unserviceable material within 100 metres lead as per direction of Engineer - in- charge.	Cum	1.80		
4	16.3.9, 16.2.& 0979	Supplying, laying & compacting good earth and extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density)	Cum	24		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
5	16.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the subgrade and disposal of surplus earth with lead upto 100 metres.	Sqm	815		
6	16.79	Providing, laying, spreading and compacting graded stone aggregate(size range 53 mm to 0.075 mm ) to wet mix macadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant, carriage of mixed material by tipper to site, for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge. (As per MoRTH specification Clause 406). Two layers of 75mm compacted thickness	Cum	200		
7	16.31.2.2	Providing and applying prime/tack coat by using bituminous emulsion complying to IS : 8887 over prepared surface preheated to a temperature between 20-70 deg C and applying a uniform coat with the aid of self propelled bitumen pressure sprayer with self heating arrangement and spraying bar with nozzles of constant volume or pressure system at the rate of 0.2 to 0.3 Kg per Sqm over granular surface/Bituminous and curing etc., including all material, labour, machinery with all leads and lifts etc., complete as directed by the Engineer in charge (As per IRC Specification)	Sqm	2390		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
8	16.39.1	4 cm thick bitumastic sheet with hot bitumen of approved quality, using stone chippings (60% with 12.5 mm nominal size and 40% with 10 mm nominal size) @ 2.60 cum per 100 sqm and coarse sand @ 2.60 cum per 100 sqm of road surface and with bitumen @ 56 kg/cum of stone chippings and @ 128 kg/cum of sand over a tack coat with hot straight run bitumen, including consolidation with road roller of 8 to 10 tonne etc. complete. (tack coat to be paid separately) : With paving Asphalt grade VG - 10 heated and then mixedwith solvent at the rate of 70 grams per kg of asphalt	Sqm	665		
9	16.40	Providing and laying seal coat of premixed fine aggregate ( passing 2.36 mm and retained on 180 micron sieve) with bitumen using 128kg of bitumen of grade VG - 10 bitumen per cum of fine aggregate and 0.60 cum of fine aggregate per 100 sqm of road surface, including rolling and finishing with road roller all complete	Sqm	1725		
10	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarses and), including base bed concrete 1:4:8, making joints with or without grooves, including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge)	Cum	6		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
11	13.61	Painting with synthetic enamel paint of approved brand and manufacture and pattern to give an even shade, two or more coats : as directed by the Engineer In charge	Sqm	100		
12	16.68	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	Sqm	60		
13	16.47.1	Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of all dirt, scales, oil, grease and other foreign material etc. and lining outcomplete.16.47.1 New work (Two or more coats)	Sqm	45		
14	4.1.8	Providing and laying in position cement concrete of specified grade including the cost of centering and shuttering at all levels: 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	Cum	1.0		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
15	7.1.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	3.00		
16	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, all leads and lift	Cum	18.00		
17	13.2.2	15 mm cement plaster 1:6 (1 cement : 6 fine sand) over round about top surface	Sqm	10.00		
		<b>Total</b>				

**CONSTRUCTION OF POND AT NORTH SIDE OF SILVER JUBILEE BLOCK**

<b>Sl. No.</b>	<b>Code</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs. (in words &amp; in figures)</b>	<b>Amount in Rs.</b>
	<b>Pond</b>					
1	MR	Removal and disposal of slush/vegetation / muck / silt etc. Of all leads and lift by mechanical means including machineries, tools, forming temporary ramps, additional safety supervision etc. Complete as directed by the Engineer in charge	Sqm	2800		
2	2.2	Earth work in rough excavation, banking excavated earth in necessary slope in layers not exceeding 20 cm in depth, breaking clods, watering, ramming and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes and dressing up in embankments for roads for all leads and lift as per the direction of Engineer in charge. for all kind of soil.	Cum	30		
3	2.31	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared	Sqm	175		
4	2.27	Supplying and filling, with coarse sand under floors/open area including, watering, ramming consolidating and dressing complete.	Cum	140.00		

<b>Sl. No.</b>	<b>Code</b>	<b>Item Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs. (in words &amp; in figures)</b>	<b>Amount in Rs.</b>
5	4.1.8	Providing and laying in position cement concrete of specified grade including the cost of centering and shuttering at all levels, 1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	Cum	16		
6	7.1.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with : Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	54		
7	16.72	Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at site	Cum	106		
8	16.73	Dry stone pitching 22.5 cm thick laid in courses and required profile with hammer dressed stones having no side less than 15 cm, with minimum depth of 20 cm including preparing the bedding surface/surface dressing of embankment side slope etc. all complete (payment for stone to be made seperately)	Sqm	528		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
9	16.68	Providing and laying 60mm thick factory made cement concrete reinterlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design& shape, laid in required colour and pattern over and including 50mmthick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	Sqm	252		
10	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarses and), including base bed concrete 1:4:8, making joints with or without grooves, including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge)	Cum	9		
		<b>Total</b>				

### HORTICULTURE

Sl. No	Code	Description	Unit	Qty	Rate (in words & in figures)	Amount in Rs.
1	23.2	Supplying and stacking of good earth at site including royalty and carriage up to 1 km (earth measured in stacks will be reduced by 20% for payment)	Cum	169		
2	23.3	Supplying and stacking sludge at site including royalty and carriage up to 1 km (sludge measured in stacks will be reduced by 8% for payment)	Cum	169		
3	23.5	Rough dressing the trenched ground including breaking clods	Sqm	1352		
4	23.6	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation	Sqm	1352		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
5	23.7	Fine dressing of the ground	Sqm	1352		
6	23.8	Spreading of sludge, dump manure and / or good earth in required thickness as per direction of Officer-in-charge (Cost of sludge, dump manure and / or good earth to be paid separately)	Cum	338		
7	23.9	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge.	Cum	338		
8	MR	Supplying & turfing Buffalo grass in the landscape area	Sqm	410		

Sl. No.	Code	Item Description	Unit	Qty	Rate in Rs. (in words & in figures)	Amount in Rs.
9	MR	Supplying & turfing Korean grass in the landscape area	Sqm	82		
10	MR	Supplying & planting of flowering & foliage plant of upto 1' height as per the selection and as per the direction of Engineer in charge	No	205		
11	MR	Supplying & planting of 3' and above height Red Palm/Royal Palm/Fox tail palm in a pit of size 450 x 450 x 600mm size as per the direction of Engineer in charge	No	12		
12	23.28	Supplying & Laying, filling soil for foaming Mounds of various size and shape to a height of 300mm & above over the landscape area as directed by the Engineer In charge	Cum	19		
13	MR	Labour for maintenance including cutting grass, watering, manuring, removal of weeds, cleaning and maintenance of garden area etc.,	Days	30		
		<b>Total</b>				

**ELECTRICALWORKS**

<b>Item no.</b>		<b>DESCRIPTION</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs. (in words &amp; in figures)</b>	<b>Amount</b>
<b>I</b>		<b>POINT WIRING</b>				
1	1.1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FR PVC insulated copper conductor single core cable etc as required.				
a	1.10.3	Group C	Point	7		
3	1.14	Wiring for circuit/sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/recessed conduit as required.				
a)	1.14.1	2x1.5sq.mm + 1x1.5sq.mm earth wire	Mtr	120		

Item no.		DESCRIPTION	Unit	Qty	Rate in Rs. (in words & in figures)	Amount
b)	1.14.2	2x2.5sq.mm + 1x 2.5sq.mm earth wire [ For light circuit]	Mtr	140		
c)	1.14.3	2 x4sq.mm +1x 4sq.mm earth wire [ For 16A Plugs]	Mtr	25		
4	1.17	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit / cable management as required.				
b)	1.17.3	3 x 1.5 sq. mm	Mtr	100		
c)	1.17.12	3 x 2.5 sq. mm	Mtr	120		

Item no.		DESCRIPTION	Unit	Qty	Rate in Rs. (in words & in figures)	Amount
5	1.21	Supplying and fixing of following sizes of PVC conduit along with the accessories in surface/ recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.				
a)	1.21.1	20 mm	Mtr	100		
b)	1.21.2	25 mm	Mtr	80		
c)	1.21.3	32 mm	Mtr	60		
6	1.22	Supplying and fixing of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc as required.				
a)	1.22.3	150mm x 75mm x 60 deep	Each	3		

Item no.		DESCRIPTION	Unit	Qty	Rate in Rs. (in words & in figures)	Amount
7	1.23	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
a)	1.23.8	Bell push	Each	1		
8	1.25	Supplying and fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	1		
9	1.26	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	10		
10	1.27	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required.				
a)	1.27.1	1 or 2 Module (75mmX75mm)	Each	5		

<b>Item no.</b>		<b>DESCRIPTION</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs. (in words &amp; in figures)</b>	<b>Amount</b>
11	1.31	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. (For light plugs to be used in non residential buildings).	Each	2		
12	1.32	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	Each	1		
13	1.33	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connection etc as required.	Each	7		
14	1.38	Supplying and fixing call bell/ buzzer suitable for single phase, 230 volts, complete as required.	Each	1		
		<b>TOTAL OF POINT WIRING</b>				

Item no.		DESCRIPTION	Unit	Qty	Rate in Rs. (in words & in figures)	Amount
<b>II</b>		<b>WALL MOUNTED SUB-DISTRIBUTION BOARDS</b>				
1	2.3	Supplying and fixing of following Single pole and neutral, Prewired, sheet steel, MCB distribution board, 230 volts, on surface / recess, complete with loose wire box, terminal blocks, duly Prewired with suitable size FR PVC insulated copper conductor up to terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, phosphatized and powder painted including EARTHING etc, as required (But without MCB / RCCB / Isolator)				
a	2.3.7	2 + 8 way, Double door	Each	1		
2	2.11	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	Each	6		
3	2.10	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				

Item no.		DESCRIPTION	Unit	Qty	Rate in Rs. (in words & in figures)	Amount
a		Single pole	Nos	4		
4	2.12	Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	2.12.1	40 amps	Each	1		
5	2.14	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	2.14.1	25A	Each	1		

Item no.		DESCRIPTION	Unit	Qty	Rate in Rs. (in words & in figures)	Amount
		<b>TOTAL OF SUB-DISTRIBUTION BOARDS</b>				
<b>III</b>		<b>LT Cables</b>				
1	LMR	Supply of following size 1.1 KV grade XLPE insulated, PVC sheathed, armoured Aluminium conductor power cable conforming to IS 7098 (Part 1) amended upto date.				
a		<b>3X 4 Sq mm</b>	Mtr	60		
a		<b>3X 6 Sq mm</b>	Mtr	70		
2	LMR	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
		3 X 4/6 sq. mm (19mm)	Each 191.00	6		

Item no.		DESCRIPTION	Unit	Qty	Rate in Rs. (in words & in figures)	Amount
3	7.7	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.				
a	7.7.1	<b>Upto 35 sq. mm (clamped with 1mm thick saddle)</b>	Mtr	70		
4	7.1	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
a		Upto 35 sq. mm Metre	Mtr	60		
5	1.24	<b>S/F Modular type switch/ socket:</b> Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
a)	1.24.1	5/6 amps switch	Each	5		

Item no.		DESCRIPTION	Unit	Qty	Rate in Rs. (in words & in figures)	Amount
b)	1.24.6	RJ11 telephone outlet	Each	1		
		<b>TOTAL FOR LT CABLES TO BE CARRIED OVER TO SUMMARY - DSR</b>				
<b>IV</b>		<b>EARTHING</b>				
1	5.2	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	Set	1		
2	5.7	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	Mtr	139		
		<b>TOTAL OF EARTHING CARRIED OVER TO SUMMARY - DSR</b>				
<b>VI</b>		<b>LIGHT FIXTURES AND FANS</b>				
		Supply of following light fixtures complete with electronic ballast, lamp holder, starter, starter holder and condenser to improve power factor duly wired up for use on 240V single phase 50 Hz AC supply. All fittings should be fitted with electronic ballast of THD less than 10%				

Item no.		DESCRIPTION	Unit	Qty	Rate in Rs. (in words & in figures)	Amount
1	LMR	Supply of Coral WRF 80/81 Indoor decorative luminaire suitable for lamps 1x 28 W FTL (T5), prewired complete with all necessary accessories suitable for operation 230V 50Hz AC supply complete with all mounting accessories as required. ( Wipro WRF 80128 SG 1 or equivalent)	Nos.	3		
2	LMR	Supply of ceiling fan 1200 mm sweep, double ball bearing, approved colour and quality with original down rod, suspension shackle, canopy etc without regulator.	Each	1		
		<b>INSTALLATION OF LIGHT FIXTURES AND FANS</b>				
3	1.41	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube etc. directly on ceiling/wall / false ceiling, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	3		
4	1.42	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube etc., including supplying and fixing ball and socket arrangement, 2 no. down rods of 20 mm dia X 1.6 mm thick steel conduit upto 30 cm length, painting and wiring the down rods and connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	2		

Item no.		DESCRIPTION	Unit	Qty	Rate in Rs. (in words & in figures)	Amount
5	1.44	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.	Each	1		
		<b>TOTAL OF LIGHT FIXTURES AND FANS CARRIED OVER TO SUMMARY - DSR</b>				
<b>VII</b>		<b>EXTERNAL LIGHTING</b>				
1	LMR	Supply and installation of flexible LED strip light outdoor type, IP65, 14.4W per meter, 5m spool, non-integral, driver placed indoor with all required accessories for the satisfactory operation and installation. (Make: Formz LS26-015-120-WH-50).	No	2		
2	LMR	Supply & installation of O Flood WFH 20 Integral floodlight luminaire with circular reflector prewired complete with all necessary accessories suitable for operation 230V 50Hz AC supply complete with all mounting accessories as required.(Wipro WFH 20070N 1 x 70 W MHL (HIT-DE)	nos	2		
		<b>TOTAL</b>				